

# LEGISLATIVE AUDIT DIVISION

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## MEMORANDUM

TO: Legislative Audit Committee Members

FROM: Jim Pellegrini, Deputy Legislative Auditor, Performance Audits

DATE: October 6, 1999

RE: **Follow-up to Performance Audit:  
Construction Contract Administration  
Montana Department of Transportation (97P-05)**

### **INTRODUCTION**

In March 1998, we presented our performance audit on Construction Contract Administration to the Legislative Audit Committee. The audit was completed at the request of the Montana Department of Transportation (MDT). The report made seven recommendations to MDT. We requested and received information from MDT on their progress in implementing the recommendations in June 1999. To complete the follow-up project, we interviewed department officials and staff, reviewed changes to written policies and forms, and reviewed the work of a Construction Process Review Team created by the department.

In addition to summarizing the results of our follow-up work, this memo presents background on the construction contract administration process and the changes that have taken place since our audit.

### **SUMMARY OF FOLLOW-UP RESULTS**

The following table shows the status of the recommendations in our 1998 report.

<b><u>Recommendation Status</u></b>	
Implemented	2
Being Implemented	4
Partially Implemented	<u>1</u>
Total	7

As can be seen in the table, most of the recommendations are still in the process of being implemented. The department is in the process of implementing a new software package called SiteManager that will be used to automate the field record keeping and contractor payment systems. This new system will allow the department to implement changes in their paperwork requirements and in how they will process and approve change orders. This system is only one part of several automated systems that are planned for various department processes related to construction projects. Final implementation is not expected to begin until April of 2000.

Several of the recommendations will require study and then change in department organization, policies, and procedures. Other changes in construction contract administration could be recommended by a Construction Process Review Team established by the department in 1999, which is discussed below. Full implementation of construction contract administration changes is not expected until sometime in 2000.

### **BACKGROUND ON CONSTRUCTION CONTRACT ADMINISTRATION**

Highway construction is achieved by contracting with private contractors to complete designated projects. The Construction Contract Administration (CCA) process is the procedures followed by department staff to monitor highway construction contracts. CCA functions are carried out centrally by the Construction Bureau within the Engineering Division and by department staff located within five regional districts located across the state. At the time of our audit, approximately 230 FTE were allocated to the CCA program. Some of the main CCA activities carried out by district staff include inspecting and testing materials and contractors' work, documenting contract quantities, preparing payment estimates, and preparing change orders. Construction Bureau staff provide oversight of district activities including ensuring uniformity between districts, reviewing progress estimates submitted by field staff, and developing program plans and program support functions.

### **CONSTRUCTION PROCESS REVIEW TEAM**

MDT and the Federal Highway Administration (FHWA) created a Construction Process Review Team in May 1999. The mission of the team was to provide management with an independent review and analysis of the MDT construction process from bid letting to final acceptance and payment on a construction project. The department requested staff from the Legislative Audit Division to provide input to the team because of experience gained through the 1998 performance audit.

The team completed most of its work during June and July of 1999 and reported its preliminary findings to MDT and FHWA management at the end of July. Additional presentations were made to MDT staff into September. To complete its study, the team reviewed the LAD audit and audits of construction projects completed by department internal audit staff. Team members constructed a flow chart of the CCA process, which was discussed with construction

staff. Because of time constraints, the team gathered much of its information through interviews with all the major groups involved with CCA including the Montana Contractors Association, district administrators, district construction engineers, construction project managers, and headquarters staff.

### **Team Findings**

The team's findings fell into five main categories where improvements were needed:

- Communications.
- Organization structure and roles.
- Designs and specifications.
- Staffing and training.
- Processes and procedures.

Several of the findings were similar to the concerns found in our 1998 audit indicating several of the recommendations were not yet implemented. Specifically, the team indicated continuing concerns with:

- Need for accountability of construction staff and management (recommendation #1).
- Need for clearer policies on change orders (recommendation #5).  
Need for clarification of role and authority of Construction Bureau and the Districts (recommendation #7).

The team found that due to the large number of construction projects and use of a large percentage of seasonal employees, the department is not always able to do the level of contractor monitoring that was done in the past. This ties to two of our recommendations (reducing CCA paperwork and adjusting the level of monitoring for lower risk projects recommendations #3 and 6) which are designed to allow construction staff to concentrate on the highest priority areas of the CCA process.

### **Other MDT Commitments**

In addition to the Construction Review Team, the department is developing other steps to improve its oversight of construction projects. These steps were discussed with the FHWA in May 1999. Some of the department commitments made to the FHWA include:

- Hiring assistant construction engineers in all districts.
- Establishing a pilot construction oversight team.
- Developing and maintaining formal construction training program.
- Establishing an expanded and improved communication program.

### **FOLLOW-UP FINDINGS**

The following sections give the implementation status of each recommendation based on follow-up work performed by the Legislative Audit Division and information collected by the Construction Process Review Team.

### **Performance Evaluations**

During the audit we found that evaluations and performance appraisals of CCA management staff were not being completed. A management evaluation process is key for decentralized operations like the department's construction contract administration process.

#### **Prior Recommendation #1**

*We recommend the department periodically evaluate CCA managers' performance.*

This recommendation is being implemented.

The department has a draft evaluation process but has not yet begun completing the performance appraisals.

### **Field Office Manual**

We found that field staff were not provided specific direction in conducting field office duties. One district had developed its own manual, which summarized valuable information from various other department sources.

#### **Prior Recommendation #2**

*We recommend the department develop a formal field office manual for district staff to use in the CCA process.*

This recommendation is implemented.

The department developed a Field Office Manual with the help of district office engineers. The manual was recently distributed to the district offices.

### **Reducing CCA Paperwork**

The department has gradually changed its system for documenting CCA activities from "paper and pencil" to electronic data processing. While electronic systems have helped simplify some CCA activities, the department has retained some of the paperwork documentation from the paper and pencil processing system.

#### **Prior Recommendation #3**

*We recommend the department eliminate unnecessary paperwork in the CCA process by revising various paperwork processes currently used.*

This recommendation is being implemented.

The department is in the process of setting up a new automated field note collection and contractor payment system (SiteManager) which the department has indicated will reduce its reliance on paperwork. The department estimates that full implementation will take two years.

### **Evaluate Partnering Process**

The department developed a partnering process designed to formalize communications with contractors and make decisions at the lowest level of project staff to help get issues resolved in a timely manner. Use of the process was voluntary and could be selected by the contractor if he felt it was needed. We found contractors only partnered on about 6 percent of construction projects. The process did not fit well with existing controls and did not achieve its intended purpose.

#### **Prior Recommendation #4**

*We recommend the department evaluate the purpose and the need for the formal partnering process*

This recommendation is being implemented.

At the conclusion of our audit the department suspended the partnering process until an evaluation of its benefits could be completed. The department has formed a committee composed of contractors, MDT staff, and FHWA staff to review the partnering process. Department officials have indicated that because of the heavy workload associated with the construction season, the committee is not expected to meet until the conclusion of the season.

### **Change Order Policy**

Change orders are modifications to construction contracts, which reflect conditions not anticipated during the project's planning process. The districts have been delegated authority to approve change orders up to certain dollar limits. However, the computer system used to process change orders has edits in place, which does not allow district personnel to exercise their approval authority.

#### **Prior Recommendation #5**

*We recommend the department either:*

- A. *Eliminate the existing change order policy which delegates authority to the district level, or*
- B. *Fully implement the current policy by adapting the current computer system to allow processing at the district level.*

This recommendation is being implemented.

The department has indicated that a decision on change order delegation will be made as part of the implementation of the new computer system for contractor payments. Any decision in this area will have to be coordinated with any changes made as a result of recommendation #7 relating to department organization and CCA roles.

### **Level of Construction Contract Monitoring**

The CCA process is designed to strictly control the quality and costs on construction projects. This approach is labor intensive and does allow for alternative approaches depending on the type of project being constructed. One possible alternative approach would be to try decreasing on-site monitoring by CCA staff for some low risk projects.

#### **Prior Recommendation #6**

*We recommend the department examine the level of construction project monitoring needed for lower risk projects.*

This recommendation is implemented.

Because of increased workload, the department has reduced the level of contract monitoring in some instances. The department has found that some tasks formerly performed by department staff can be more efficiently performed by the contractor. The department then performs more of a quality assurance role in these situations.

### **Organization and Role**

Under the current organizational structure, Construction Bureau Staff operate with several disadvantages. The bureau's functions are a confusing mix of oversight and technical assistance, which has created communication and organizational problems statewide. The current organizational structure does not correspond to the control and procedures established for the CCA process.

#### **Prior Recommendation #7**

*We recommend the department examine and change the role and the authority of the Construction Bureau and the districts in the Construction Contract Administration Process.*

This recommendation is partially implemented.

The department has clarified the role of the Construction Bureau with the parties involved in the CCA process. However, the department has not changed the organizational structure and the districts are still higher in the reporting structure than the bureau which has oversight responsibility over the districts. Organizational structure and its accompanying communication

requirements were two of the main issues identified by the Construction Process Review Team. Department officials indicated that organizational change is a consideration as they complete a study of the recommendations made by the Construction Process Review Team.

### **CONCLUSION**

Even though the department has only implemented two of the seven recommendations, department officials have indicated their intent to implement all of the recommendations. We found the department has activities in place that should address the remaining five recommendations sometime in 2000. Therefore, we do not believe additional follow up is necessary.

Job Number: 00SP-38

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cc: Marvin Dye, Director, Montana Department of Transportation